

### **REMARKS**

This Amendment and Response is in reply to the Office Action of April 17, 2008. A one (1) month Petition for Extension is filed concurrently herewith. Therefore, the time period for reply extends up to and includes August 17, 2008.

Claims 1 – 19 are presently pending.

#### **Rejections Under 35 U.S.C. § 103**

The Examiner has rejected Claims 1-8 under 35 U.S.C. 103(a) as being obvious over Itami (10-280087) or Akisue (JP 11-315328) or Yokoi (WO 01/81640 used with English equivalent U.S. 6,589,369) or Yoshinaga (WO 01/94655 used with English equivalent 6,632,296). Applicants respectfully traverse the rejections for at least the following reasons.

#### **Generally for all references cited for Rejection Under § 103:**

Applicants submit that not one of the references discloses a composition which fully corresponds to the composition of claim 1. The claimed ranges for C, Al, Si, P and Mn of the present application represent either non-obvious selections based on unexpected results from broader ranges disclosed in the references, or overlap ranges in the references. Examples of the recited references disclose Si levels higher than that claimed in claim 1, and aluminum, levels that are lower than that of claim 1. Therefore, the unexpected results of specific ranges, such as recited Al levels, makes the austenite more stable, and will not retard the bainite transformation kinetics (e.g. paragraphs [0051] – [0053] of the specification as filed). Applying these specific ranges would not have been obvious to one of skill in the art as it would have required a specific choice of several component ranges to lead to the recited advantages.

#### **Itami (JP 0280087):**

The ranges for C, Al, Si, P and Mn of claim 1 are non-obvious in light of Itami. The examples of Itami disclose Al levels much lower than the range in claim 1 of the present application. Lower levels of Al will render the retained austenite less stable, and will more easily transform into martensite during strain, limiting the formability of the material (paragraph [0051]).

Additionally, Si levels of most of the examples of Itami are much higher than those recited in claim 1 of the present application. One of skill in the art would not have chosen the combination of ranges of C, Al, Si, P and Mn of claim 1 based on the disclosure of Itami. Therefore, Itami alone neither teaches nor suggests the presently claimed invention.

#### **Akisue (JP 11315328)**

The majority of examples of Akisue disclose very low Si levels in combination with very high Al levels. One of skill in the art would have chosen the combination of ranges C, Al, Si, P and Mn of claim 1 based solely on the disclosure of Akisue. Additionally, Example E of Akisue discloses a P level of 0.12%. Claim 1 of the present application recites a range of P levels from 0.04 – 0.1 wt%. The claimed P range, in concert with the claimed ranges of other elements of claim 1, leads to the unexpected results such as (see paragraph [0036]). Therefore, Akisue alone neither teaches nor suggests the presently claimed invention.

#### **Yokoi (US 6,589,369)**

All of the examples disclosed in Yokoi recite Al levels lower than the range of Al levels recited in claim 1 of the present application. Furthermore, none of the steel prepared in the examples of Yokoi comprises austenite in the microstructure. Because the steel of Yokoi does not comprise austenite, the steel cannot display TRIP behavior as disclosed in the present application as an unexpected result of using the recited compositions. In most examples of Yokoi, Si levels are much higher than the Si level range recited in claim 1 of the present application. Additionally, in most examples the P level is much lower than the P level range recited in claim 1 of the present application. Yokoi discloses that “P is an undesirable impurity

and the lower the content the better” (see col. 10 line 10). Yokai teaches away from the ranges recited in claim 1 of the present application and toward the lower end of the ranges recited (0 – 0.1wt%). Therefore, one of skill in the art would not

### **Yoshinga (US 6632296)**

The claimed ranges for C, Al, Si, P and Mn of the present application represent either non-obvious selections based on unexpected results from broader ranges disclosed in Yoshinga, or overlap ranges of Yoshinga. Examples of Yoshinga disclose lower C, P, Si and Al levels than that of the ranges of claim 1 of the present application. Therefore, Yoshinga alone neither teaches nor suggests the presently claimed invention.

### **Combination of Itami, Akisue, Yokoi and Yoshinga**

In combining the disclosures of Itami, Akisue, Yokoi and Yoshinga, one of skill in the art would be confronted with confusion of choice of compositions in that it would direct one toward lower Al **or** higher Al levels, but perhaps higher **or** lower Si along with levels of P that could be higher **or** lower **or** absent all together. Therefore, the combination of Itami, Akisue, Yokoi and Yoshinga taken together neither teach or suggest the composition of the presently claimed invention to one of skill in the art.

In view of the foregoing, Applicants respectfully request reconsideration and withdrawal of the § 103(a) rejections. Applicants do not otherwise conceded the correctness of the rejections and reserve the right to make additional arguments as may be necessary.

### **Conclusion**

In view of the above amendments and remarks, Applicants respectfully request a Notice of Allowance. If the Examiner believes a telephone conference would advance the prosecution of this application, the Examiner is invited to telephone the undersigned at the below-listed telephone number.

*U.S. Patent Application Serial No. 10/539,758*

*Amendment dated August 13, 2008*

*Reply to Office Action of April 17, 2008*

Please charge any additional fees or credit any overpayment to Merchant & Gould, P.C.,  
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Respectfully submitted,

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*August 13, 2008*

  
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